Claims

1. A method of feeding water to the heat transfer surfaces of a falling film evaporator having vertical evaporation channels, by distributing the water as a spray of drops to the beginning of the heat transfer surfaces, **characterised** in that water soluble, essentially atmospheric gases are simultaneously separated from the water.

2. An apparatus for removing dissolved gases from water to be evaporated in connection with a falling film evaporator, which apparatus comprises vertical evaporating channels and at least one spraying device (3) for breaking the heated feed-water into a spray of droplets having a hit pattern substantially corresponding to the area of the upper end (4) of the evaporator channel arrangement, **characterised** in that it comprises at least one outlet (5) for the removal of gases separating from the droplets.

3. An apparatus as defined in claim 2, **characterised** in that it comprises a trough having a perforated bottom and lying above the upper end (4) of the evaporator channel arrangement.

4. An apparatus as defined in claim 2 or 3, **characterised** in that it comprises a substantially hemispherical chamber, the end of the evaporator tube arrangement forming the plane side thereof.